

Fig. 1a

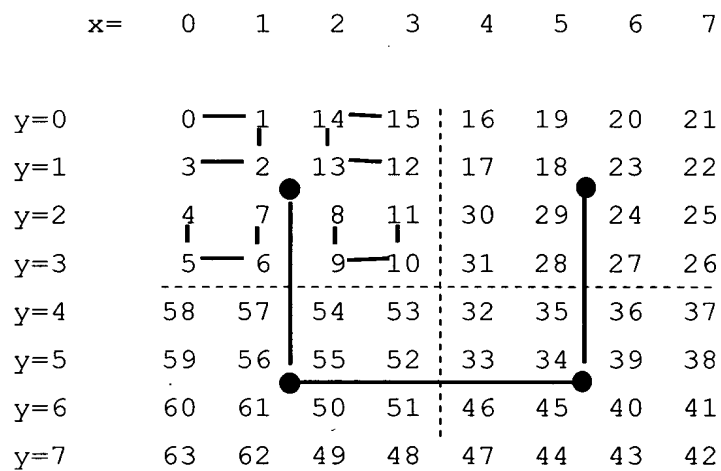


Fig. 2

| | | | | | | | | |
|------|----|----|---------|----|----|-----------|----|----|
| x= | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| y= 0 | 0 | 1 | 4 | 5 | 16 | 17 | 20 | 21 |
| y= 1 | 2 | 3 | 6 | 7 | 18 | <u>19</u> | 22 | 23 |
| y= 2 | 8 | 9 | (12 13) | 24 | 25 | 28 | 29 | |
| y= 3 | 10 | 11 | (14 15) | 26 | 27 | 30 | 31 | |
| y= 4 | 32 | 33 | (36 37) | 48 | 49 | 52 | 53 | |
| y= 5 | 34 | 35 | (38 39) | 50 | 51 | 54 | 55 | |
| y= 6 | 40 | 41 | 44 | 45 | 56 | 57 | 60 | 61 |
| y= 7 | 42 | 43 | 46 | 47 | 58 | 59 | 62 | 63 |

Fig. 1b

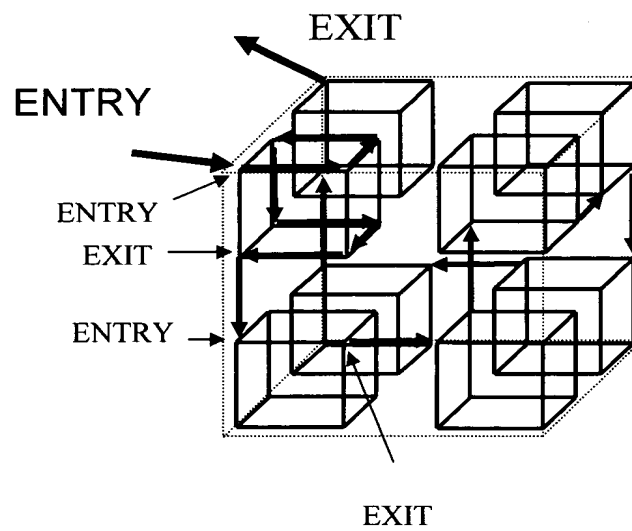


Fig. 3

Expl.1 Expl.2: Expl.3: Expl.4: Expl.5:

f: 101

| | | | | |
|-------|--------|--------|--------|--------|
| 0: 00 | 0: 000 | 0: 101 | 0: 011 | 0: 100 |
| 1: 01 | 1: 001 | 1: 100 | 1: 001 | 1: 110 |
| 2: 11 | 2: 011 | 2: 110 | 2: 101 | 2: 111 |
| 3: 10 | 3: 010 | 3: 111 | 3: 111 | 3: 011 |
| | 4: 110 | 4: 011 | 4: 110 | 4: 001 |
| | 5: 111 | 5: 010 | 5: 100 | 5: 000 |
| | 6: 101 | 6: 000 | 6: 000 | 6: 011 |
| | 7: 100 | 7: 001 | 7: 010 | 7: 101 |

Fig. 4

```

zyx      zyx  Tab(0)=(000/+2)
0| 000(a)| 000(a) 000 (a)
000      ..   010
000      ..   110
000      ..   100
000      .. >> 101
000      ..   111
000      ..   011
000      .. 1(b) 001
-----
1 001      0(b)
001      ...
way
...
001      .1.(b)
-----
2 011      .0.(b)
...
011      ..0(b)
-----
3 010      ..1(b) 011 Tab(3)=(011/0)
...      >> 000 XOR 011=011
          100 XOR 011=111
010      1..(b) 111
-----
4 110      0..(b)
...
110      ..1(b)
-----
5 111      ..0(b)
...
111      .0.(b)
-----
6      Tab(6)=(110/+1)
101      .1.(b) 0 | 110(a) 110(a)
          110      ...
101      1 010
101      2 011
          Sub-Sub-Cube:
ConcatTab(3)=(011/0)with
Tab(6)=(110/+1)
101      3 111 011
          3 111 010
          3 111 000
          3 111 001
          3 111 101
          3 111 100
          3 111 110
          3 111 111
101      4 101
101      5 001
101      6 000
101      ..0(b) 7 | 100(a) 100(a)
-----
7 100      ..1(b)
entry/exit
...
identical
| 100 | 1100(a)

```

(c): see text

(b): x bit changing in opposite way

(a): main bitblocks

Fig. 5

Primitive 1D, 2 bit, Data Cube:

1st bit: 0----->1

2nd bit: 0-->1-->0-->1

| z | z | yz | yz | yz | yz | xyz | xyz |
|-------|---|----|------|----|------|-----|-------|
| 0 | 0 | 00 | 00 | 00 | 00 | 000 | 000 |
| | 1 | | 01 | | 01 | | 001 |
| 1 | 0 | 01 | 00 | 01 | 00 | 001 | 000 |
| | 1 | | >01< | | >10< | | 010 |
| ----- | | | | | | | |
| | | 11 | >11< | 11 | >00< | 011 | 000 |
| | | | 10 | | 10 | | 010 |
| | | 10 | 11 | 10 | 11 | 010 | 011 |
| | | | 10 | | 10 | | >111< |
| ===== | | | | | | | |
| | | | | | | 110 | >011< |
| | | | | | | | 111 |
| | | | | | | 111 | 110 |
| | | | | | | | 100 |
| ----- | | | | | | | |
| | | | | | | 101 | 110 |
| | | | | | | | 100 |
| | | | | | | 100 | 101 |
| | | | | | | | 100 |

(a)

(b)

(c)

(d)

Fig. 6